Contribution Title: MAXIMAL SUPERSYMMETRY AND NON-ABELIAN

GAUGE GROUPS

Authors: H. Samtleben Presenting author: Samtleben H.

Affilation: Ecole Normale Superieure de Lyon E-mail: henning.samtleben@ens-lyon.fr

Invited speaker: Topical session

YRS seminar: NO

I review recent progress in the construction and classification of maximally supersymmetric theories with non-abelian gauge groups. The algebraic framework is based on the underlying exceptional symmetry groups. This has applications for supergravity theories describing flux compactifications as well as for recently constructed three-dimensional superconformal theories describing the dynamics of multiple M2-branes.